Light Fund Overview

Mission Statement

The mission of Concord Municipal Light Plant is to supply reliable and cost effective energy services, in a responsible and courteous manner, which meets the current and future needs of our customers.

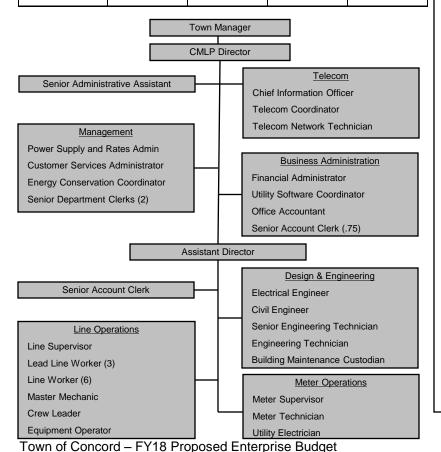
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Light Fund Highlights

- The cost of purchased power, a pass-through expense to the customer, makes up approximately 75% of operating expenditures.
- The Light Plant has a three-tiered rate schedule for residential customers to encourage conservation; the more electricity that a customer uses the higher the rate.
- Electricity from renewable energy sources equals approximately 23% of the kilowatt hours of all purchased power. The Light Plant Board's goal is to increase the percentage of renewable energy to 30% by 2020.
- In 2014, CMLP implemented its broadband service to residences and businesses by using extra capacity available in the fiber optic cables installed as part of the Smart Grid program.

Operating and Net Income Summary										
	2014 Actual 2015 Actual 2016 Estimated Budg									
Operating Income	\$ 1,468,945	\$ 1,675,814	\$ 1,313,527	\$ 1,799,183						
Net Income	\$ 2,118,998	\$ 2,010,239	\$ 1,711,758	\$ 2,329,480						



Description

The Concord Municipal Light Plant (CMLP) is responsible for providing electricity to more than 8,300 residential, municipal, and business customers throughout Concord. Since the Light Plant does not have generating capability, it purchases its power from outside suppliers. To distribute the electricity, the CMLP operates three substations along with transmission and distribution facilities. Power lines are maintained by CMLP line workers. To monitor the system, the Light Plant has a modern, consolidated operations center. In addition, the CMLP staff is responsible for reading electric and water meters, and for providing customer service.

As a Town Enterprise, the Light Plant is supported by revenue raised from electric utility rates paid by its customers. Current resources are allocated to pay for the upkeep of existing substations and power lines.

A new Telecommunications Division within CMLP has been established to provide broadband service to residences and businesses. This Division is run by the Chief Information Officer, who reports to the CMLP Director.

Light Fund Overview

The Concord Municipal Light Plant is

committed to providing the Town with reliable power while decreasing the Town's dependence on electricity generated from fossil fuels. CMLP has upgraded its transformers and increased the pass-though capacity of its power grid. At the same time, CMLP has set a goal to obtain 30% of its electricity from renewable sources by 2020. In addition, the Light Plant has initiated programs and policies to encourage energy efficiency and conservation measures by its residential and commercial customers.



Purchased Power: Energy and Capacity

Purchased power is comprised of two components: energy and capacity. To understand the difference, one can use the analogy of water distribution. Electrical energy (kilowatt hours) can be compared to the amount of water consumed (gallons) over time. Electrical capacity (megawatts or more precisely mega volt amperes that includes power lost during distribution) can be compared to the size of the water pipe or the capacity to deliver water (i.e. the larger the pipe the more water it can carry). So energy has to do with consumption over time while capacity measures the amount of electricity delivered at any one moment. The Town must purchase both.

Purchased Power: Power Supply Portfolio (23.3% from Renewable Sources)

The 2017 power supply portfolio consists of the purchase of electricity from the following sources:

Non-Renewable Sources

	 Contracts (not associated)s 	42.8% of total MWh
	RISE – Natural Gas	18.4%
	 ISO Energy Purchases 	<u>15.5%</u>
		76.7%
•	Renewable Sources	
	 Niagara (NYPA) – Hydro 	3.9%
	 Kearsarge II 	3.5%
	 Miller – Hydro 	3.3%
	 Spruce Mountain – Wind 	2.9%
	 Granby – Landfill Gas 	2.8%
	 Saddleback – Wind 	2.7%
	 New Bedford – Landfill Gas 	2.2%
	 Kearsarge I 	1.1%
	 NuGen – Solar 	0.6%
	 Solect – Solar 	<u>0.3%</u>
		23.3%

Purchased Power: Local Conservation Initiatives

The Light Plant has initiated programs and policies to encourage energy conservation. The Smart Grid Infrastructure will allow CMLP to better manage its customers' electricity demands. A new residential rate structure adopted in May 1, 2015 has tiers in which users of lower amounts of electricity will pay a lower unit rate.

An active rebate program has been put in place by CMLP to promote local conservation initiatives. For residential and commercial customers, CMLP provides rebates for efficient lighting fixture upgrades and energy star appliance purchases. Additional rebates for residential customers are available for weatherization and central A/C efficiency projects.

Electricity Rate Revenue

Total Revenue expected to be raised through electricity rates in 2017 is projected to be

\$26,255,418 as shown in the following categories:

Residential sales: \$11,558,670

Commercial sales: 12,531,860

Municipal sales: 1,628,617
Operating subtotal: \$25,719,147

Underground surcharge: 406,271

CARES surcharge: <u>130,000</u> Total: \$26,255,418

Of the 166.0 MWh of electricity expected to be provided in 2016, it is forecast that residential sales will be 70.0 MHh, commercial sales 84.8, and municipal sales 11.2 MWh.

Electric Rate Highlights

•Effective on February 2, 2017, the residential rate (R-1) is set at a meter charge of \$9.00 per month for a single phase system and the following three-tiered energy rates:

per kWh

Tier 1: first 600 kWh \$0.04853
Tier 2: next 316 kWh \$0.06311

Tier 3: over 916 kWh \$0.09107

The distribution charge is \$0.03160 and the energy charge is \$0.06418. The above rates per kWh will be adjusted plus or minus in accordance with a formula specified in the Power Cost Adjustment Clause and the NYPA Power Cost Adjustment Clause.

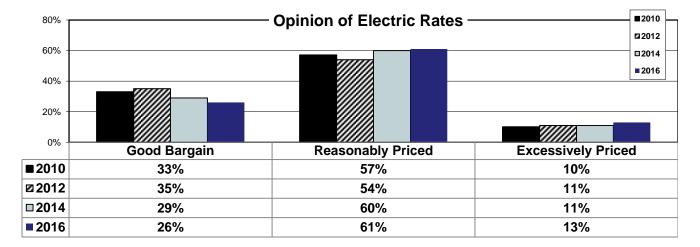
Surcharges

Each electric utility bill includes a 1.5% underground surcharge and a 0.52% Conservation and Renewable Energy Service (CARES) surcharge. The money raised through the underground surcharge is used to place power lines underground. As a result of this activity and in association with zoning requirements for new developments, the Town currently has approximately 50% of its power lines underground.

The Conservation and Renewable Energy Service surcharge is used for the energy conservation activities sponsored by the Light Plant. Funds from the surcharge provide assistance to customers for the purchase of more energy efficient systems and appliances.

Citizen Survey

In 2010, 2012, 2014, and 2016 the Town conducted a resident survey of Concord residents. For the Light Plant, the following question was asked: "What is your opinion of the price of electric rates?" In 2016, the response was that 26% thought that the price is a Good Bargain and 61% thought that it is Reasonably Priced, and 13% thought it was Excessively Priced.



Program Implementation

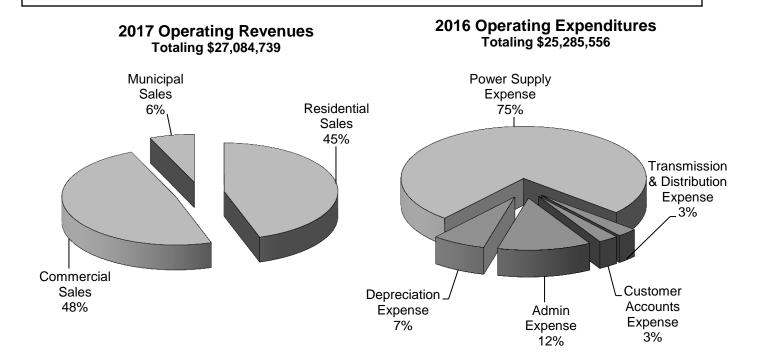
For Calendar Year 2017, the Concord Municipal Light Plant is projecting that it will have \$27.0 million in operating revenues and \$25.2 million in operating expenditures.

For revenues, funds collected from the sale of electricity are expected to increase from \$24.0 million in 2016 to \$27.0 million in 2017.

For expenditures, the primary cost is the power supply expense. From 2016 to 2017, it is forecast that the power supply expense will increase from \$16.4 million to \$19.0 million. Purchased power expense is passed directly onto customers.

In 2017, the Light Plant is expected to have operating income of \$1,799,183 and net income of \$2,329,480. With the addition to the net income of the depreciation expense of \$1,783,676 and the subtraction of \$683,750 for debt principal repayment and \$474,000 for payment in lieu of taxes, the amount of current resources projected to be available for capital purposes is \$2,955,406.

From 2016 to 2017, the cost of the plant (the total worth of the CMLP capital assets) is projected to increase from \$60.6 million to \$64.2 million. As a result, the 2017 rate of return is projected to be 2.6% as compared to 1.6% in 2016.



OPERATING REVENUES

Calendar Year:	2014 Actual	2015 Actual	2016 Estimated	2017 Budgeted
Sales of Electricity:				
Residential Sales	\$10,885,481	\$11,427,667	\$ 11,072,975	\$ 11,558,670
Commercial and Industrial Sales	12,163,798	13,447,655	13,064,292	12,531,860
Municipal Sales	1,709,970	1,816,561	1,658,274	1,628,617
Operating Revenues Billed Total	\$24,759,249	\$26,691,883	\$ 25,795,541	\$25,719,147
Net Change in Unbilled Revenues	164,019	(293,056)	(38,002)	
Provision for Rate Refund	1,088,255	(710,400)	(896,578)	
Provision for Rate Stabilization	(592,270)	(608,676)	(851,081)	1,252,042
Other Operating Revenue	128,575	133,724	76,967	113,550
Operating Revenues Total	\$25,547,828	\$25,213,475	\$ 24,086,847	\$27,084,739

OPERATING SALES (kWh)

Calendar Year:	2014	2015	2016	2017
	Actual	Actual	Estimated	Budgeted
Kilowatt-hours Sold:				
Residential Sales	71,348,881	72,156,349	71,737,366	70,010,767
Commercial and Industrial Sales	86,094,885	88,323,302	86,257,526	84,788,546
Municipal Sales	11,837,023	11,868,467	10,773,183	11,214,687
Electric Sales Billed Total	169,280,789	172,348,118	168,768,075	166,014,000

Source: 2014 & 2015 data are actual data from audited financial statements; 2016 data is estimated from the year ending on September 30, 2016; 2017 data is the budget adopted by the Municipal Light Board.

OPERATING EXPENSES (\$)

		Actual		Actual	 Estimated	B	Budgeted
perating Accounts: Power Supply Expense	\$1	7,933,956	\$ 1	7,188,829	\$ 16,393,737	\$ 1	9,042,840
Transmission & Subtrans. Expenses:							
Operation — Captiana — Apontosia		12,798		6,112	8,142		15,000
Maintenance		81,930		86,293	71,548		(
	\$	94,727	\$	92,404	\$ 79,690	\$	15,000
Distribution Expenses:							
Operation		256,120		200,020	198,355		203,50
Maintenance		376,208		712,678	621,142		457,500
Audit Adjustment		24,606		7,187			
	\$	656,934	\$	919,885	\$ 819,497	\$	661,000
Customer Accounts Expenses:							
Supervision		19,087		36,145	34,243		35,000
Meter-reading Labor and Expenses		7,688		19,416	18,347		20,00
Billing, Collecting, & Assoc. Costs		176,402		187,794	232,024		200,00
Uncollectible Accounts		5,566		(61)			
Customer Information Services		475,381		295,735	410,621		408,48
Audit Adjustment		18,237		3,867	 		
	\$	702,361	\$	542,896	\$ 695,235	\$	663,48
Administrative & General Expenses:							
Operations:							
Administrative & General Salaries		912,554		908,512	955,514		1,005,86
General Fund Services		396,272		394,670	412,440		420,000
Office Supplies and Expense		72,626		75,699	96,723		80,000
Outside Services Employed		99,324		147,231	126,972		147,000
Property Insurance		77,153		48,923	46,781		55,00
Employee Pensions & Group Ben.		633,319		635,091	665,213		680,000
Employee Training		62,735		79,756	61,864 471,501		60,000
Sick Leave/Vac. Leave/Holidays		408,123		444,398	471,501 (5.258)		410,000
Miscellaneous Expenses		6,976		30,321	(5,258) 194,976		55,20
Maintenance of General Plant		200,411 154,727		207,289 64,208	194,976		206,50
Audit Adjustment	\$	3,024,220	\$	3,036,098	\$ 3,026,726	\$	3,119,560
Operating Accounts Subtotal	\$2	2,412,198	\$2	1,780,112	\$ 21,014,885	\$2	3,501,880
Depreciation Expense	\$	1,666,685	\$	1,757,549	\$ 1,758,435	\$	1,783,670
Operating Expenses Total	\$2	4,078,883	\$2	3,537,661	\$ 22,773,320	\$2	5,285,556

Revenues and Expenditures

AUTHORIZED POSITIONS

			UNIZED FUSIT			
		July	1, 2016 - June 30, Fiscal Year 2017	•	, 2017 - June 30, Fiscal Year 2018	2018
Code	Position Title	<u>Grade</u>	# Positions	\$ Amount	# Positions	\$ Amount
	ight Plant Operations	Glaue	# F 051110115	φ Amount	# 1051110115	φ Amount
_	Director	EM-4	1	141,160	1	141,160
	Assistant Director	EM-3	1	115,289	1	115,289
	Power Supply & Rates Admin	EM-3	1	104,914	1	103,378
	Electrical Engineer	EM-2	1	101,653	1	101,653
	Financial Administrator	MP-4	1	90,897	1	93,194
	Civil Engineer	MP-3	1	87,168	1	87,168
	Customer Service Admin	MP-3	1	78,818	1	78,818
	Energy Conservation Coord.	MP-3	1	83,530	1	83,530
	Meter Supervisor	EM-1	1	84,575	1	84,575
	Utility Software Coordinator	MP-2	1		1	69,150
		MP-2		69,150	1	
	Senior Eng. Technician	MP-1	1	73,843	1	73,843
	Engineering Technician		1	64,138		64,138
	Office Accountant	MP-2	1	71,081	1	71,081
	Sr. Administrative Assistant	ACL-5	1	65,379	1	65,397
	Sr. Account Clerk	ACL-3	1.88	115,580	1.88	116,011
	Sr. Department Clerk	ACL-3	1	52,911	1	53,182
	Line Supervisor	EL-6	1	104,880	1	104,881
	Lead Line Worker	EL-5	3	280,416	3	280,441
	Lineworker, Grade 1	EL-4	3	267,012	3	263,570
	Lineworker, Grade 2	EL-3	0		0	0
	Lineworker, Grade 3	EL-2	2	118,814	2	118,642
	Utility Electrician	EL-3	1	75,064	1	75,064
	Meter Technician	EL-2	1	64,480	1	65,418
	Master Mechanic	TCL-5	1	73,268	1	73,268
	Crew Leader	TCL-5	1	68,325	1	68,403
	Equipment/Line Operator	TCL-4	1	58,902	1	58,903
	Building Maintenance Cust.	TCL-2	1	53,447	1	53,662
Т	elecommunications					
	Chief Information Officer	MP-7	0.40	62,725	0.40	62,726
	GIS / Applications Manager	MP-4	0.20	17,138	0.20	17,138
	Telecom Coordinator	MP-4	1	81,694	1	81,695
	Telecom Network Technician	MP-2	1	64,527	1	64,527
	Information Syst. Asst.	MP-2	0.20	14,278	0.20	14,296
	FTE Subtota	I	34.68	\$2,805,057	34.68	\$2,804,201
ı	ine Worker Stand-by Pay		1320 hrs.	48,783	1320 hrs.	48,326
	Engineering Stand-by Pay		1320 1115.	46,763 31,320	1320 1115.	40,320 31,320
L	Salary Subtota	I		2,885,160	-	2,883,847
	-			,,		
Allowa	ance for Salary Increases					112,168
517X G	Group Insurance:					
	Health, Life, Dental			280,000		308,000
	Retirement			403,508		423,095
	OPEB Contribution			10,478		15,509
	Soc. Sec. & Medicare Tax			40,000		42,500
C	Clothing Allowance			3,600		3,600
	Benefits Subtota	I		737,586		792,704
	Personnel Services Tota	ı		\$3,622,746	-	\$3,788,719
					=	

DEBT SERVICE

	FY15	FY16	FY17	FY18
	Actual	Actual	Estimated	Budgeted
Long Term Debt (Cash Basis):				
Principal	\$760,000	\$767,500	\$705,000	\$662,50
Interest	239,133	224,938	196,174	174,93
Totals	\$999,133	\$992,438	\$901,174	\$837,43
Calendar Year:	2014	2015	2016	2017
	Actual	Actual	Estimated	Budgeted
Accrued Interest Expensed	\$192,701	\$237,234	\$235,420	\$182,20

PAYMENTS TO THE GENERAL FUND

own Fiscal Year Basis	FY15	FY16	FY17	FY18
	Actual	Actual	Estimated	Budgeted
Financial & Administrative Services:				
Town Manager's Office	\$101,540	\$98,286	\$103,693	\$103,454
Town Accountant	53,275	55,286	56,600	57,638
Treasurer-Collector	56,507	57,414	58,863	58,446
Finance Administration	44,597	46,905	50,702	48,517
Human Resouces	57,403	62,701	65,371	68,028
Town House Facilities	5,612	5,633	5,846	5,879
Subtotal	318,934	326,225	341,075	341,96
Natural Resource Protection:				
Planning	\$10,627	\$11,156	\$11,463	\$11,857
Natural Resources	\$20,556	\$21,360	\$21,740	\$22,423
Subtotal	\$31,183	\$32,516	\$33,203	\$34,280
Landscaping @ Substations:				
Parks & Trees	\$7,225	\$7,225	\$7,225	\$8,764
GIS Administrator:				
CPW Engineering	\$2,967	\$0	\$0	\$0
Adjustment (Fiscal to Calender Year)	\$35,963	\$28,704	\$30,937	\$34,994
Total	\$396,272	\$394,670	\$412,440	\$420,000
Payment in Lieu of Taxes (PILOT)	\$458,650	\$472,400	\$465,500	\$474,000
Calendar Year of PILOT Payment	2014	2015	2016	2017

NET INCOME

Calendar Year:	2014	2015	2016	2017
	Actual	Actual	Estimated	Budgeted
Statement of Net Income:				
Operating Revenues	\$25,547,828	\$25,213,475	\$ 24,086,847	\$27,084,73
Less Operating Expenses	(24,078,883)	(23,537,661)	(22,773,320)	(25,285,55
Operating Income	1,468,945	1,675,814	1,313,527	1,799,18
Plus:				
Interest & Dividend Income	\$ 22,182	\$ 37,816	\$ 56,322	\$ 50,00
Underground Surcharge	371,505	361,337	296,798	406,27
CARES Surcharge	128,787	125,177	125,252	130,00
M&J Income	194,253	153,874	125,438	100,00
Audit Adjustment	136,290	34,961		
Non-Operating Income Subtotal	853,017	713,165	603,810	686,27
Gross Income	2,321,962	2,388,979	1,917,337	2,485,45
Less Non-Operating Expense:				
Interest and Amortization (accrued expense)	(192,701)	(232,863)	(204,479)	(152,20
Loss on Disposal of Capital Assets	(29,721)	(145,877)		
Other Expenses (Revenue)	19,458		(1,100)	(3,77
Subtotal	(202,964)	(378,740)	(205,579)	(155,97
Net Income	\$ 2,118,998	\$ 2,010,239	\$ 1,711,758	\$ 2,329,48
Transfers Out - Pilot	(458,650)	(472,400)	(465,500)	(474,00
Surplus Reduction	(600,000)			

AVAILABLE RESOURCES

Resources Available from Current Operations for Replacement and Renewal of Plant
(Not including Issuance of Debt):

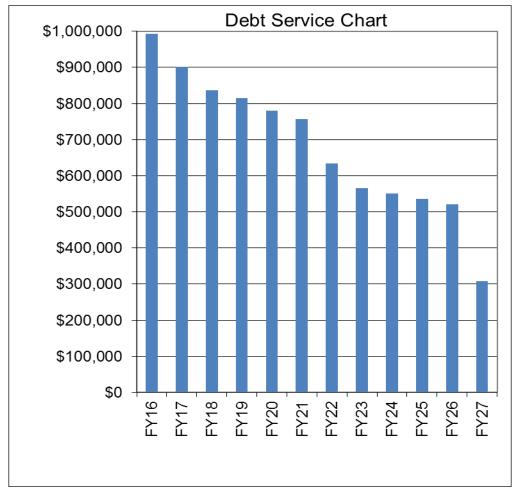
Calendar Year:	2014	2015	2016	2017
Calondar Four	Actual	Actual	Estimated	Budgeted
From:				
Depreciation Expense	\$1,666,685	\$1,757,549	\$1,758,435	\$1,783,676
Net Income	2,118,998	2,010,239	1,711,758	2,329,480
Subtotal	3,785,683	3,767,788	3,470,193	4,113,156
Less:				
Debt Principal Repayment	(760,000)	(763,750)	(736,250)	(683,750)
Payment in Lieu of Taxes	(458,650)	(472,400)	(465,500)	(474,000)
Subtotal	(1,218,650)	(1,236,150)	(1,201,750)	(1,157,750)
Net from Current Operations				
Available for Capital Purposes:	\$2,567,033	\$2,531,638	\$2,268,443	\$2,955,406
Cost of Plant @ Year End: (Utility Plant in Service)	\$59,268,832	\$59,794,807	\$60,643,290	\$64,233,513
Net from Current Operations				
as % of Cost of Plant:	4.3%	4.2%	3.7%	4.6%
Cost of Plant:				
Beginning	56,181,550	59,268,832	59,794,807	60,643,290
Additions	3,214,229	1,680,617	848,483	5,008,000
Less Retirements	(126,947)	(1,154,642)		(1,417,777)
Ending	\$59,268,832	\$59,794,807	\$60,643,290	\$64,233,513

RATE OF RETURN

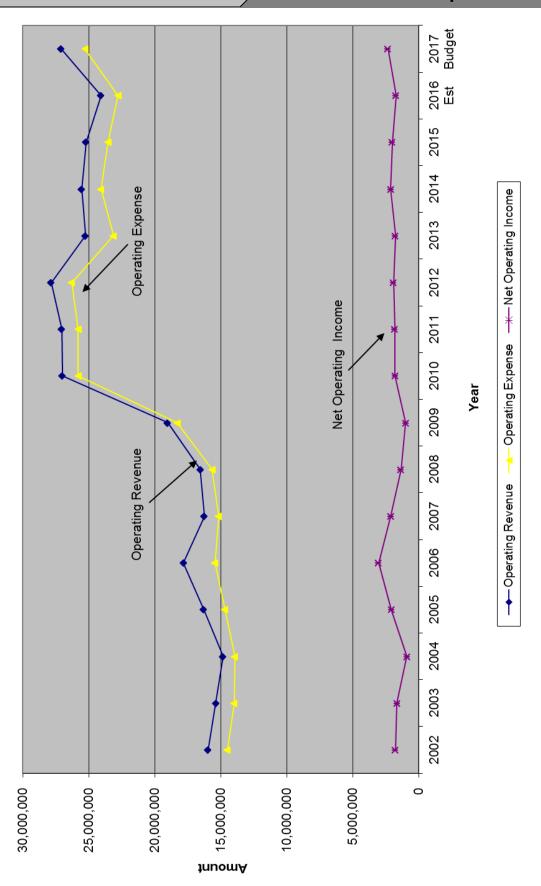
Rate of Return Analysis:				
Calendar Year:	2014 Actual	2015 Actual	2016 Estimated	2017 Budgeted
Net Income	\$2,118,998	\$2,010,239	\$1,711,758	\$2,329,480
Less Debt Principal Repaid (accrual basis)	(760,000)	(763,750)	(736,250)	(683,750)
Net Return	1,358,998	1,246,489	975,508	1,645,730
Cost of Plant @ Year End	\$59,268,832	\$59,794,807	\$60,643,290	\$64,233,513
% Return (Net Return ÷ Cost of Plant)	2.3%	2.1%	1.6%	2.6%

LIGHT FUND DEBT SERVICE

Fiscal			
Year	Principal	Interest	Total
FY16	767,500	224,938	992,438
FY17	705,000	196,174	901,174
FY18	662,500	174,938	837,438
FY19	662,500	152,063	814,563
FY20	650,000	129,375	779,375
FY21	650,000	106,875	756,875
FY22	550,000	84,375	634,375
FY23	500,000	65,625	565,625
FY24	500,000	50,625	550,625
FY25	500,000	35,125	535,125
FY26	500,000	21,625	521,625
FY27	300,000	7,500	307,500
Totals	\$6,947,500	\$1,249,238	\$9,195,871



Light Fund Revenue, Expense, and Net Income

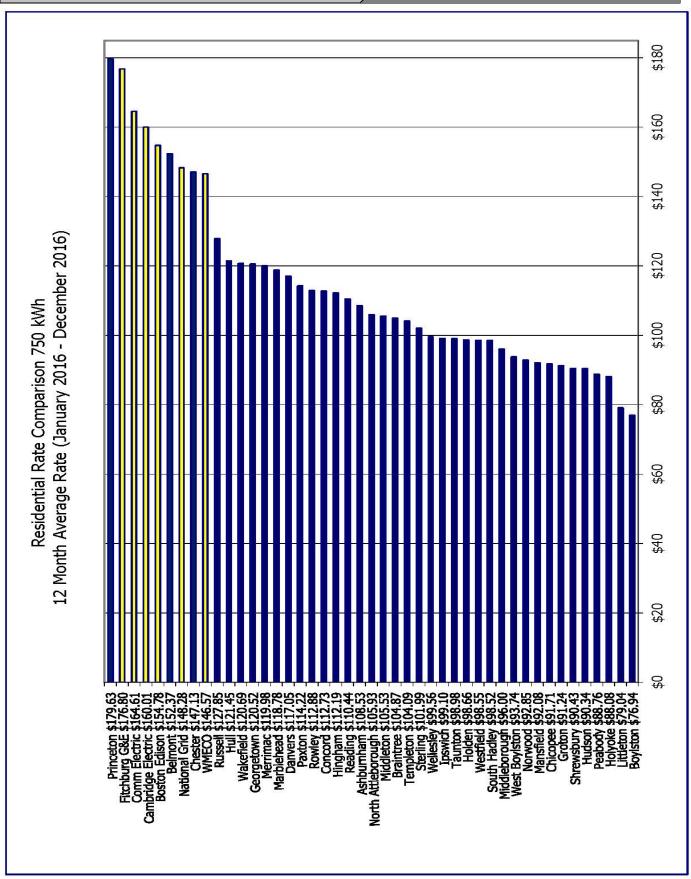


Concord Municipal Light Plant kWhs Sold, Revenues, Expenses, Operating Income, & Net Income (CY2002-2015 Actual, CY2016 Estimated, and CY2017 Budgeted)

Calendar Year	kW Residential	/hs Sold	I (Millio Municipal	ns)	Operating Revenues	Operating Expenses	Operating Income	Net Income
2002	64	98	9	171	15,975,614	14,495,030	1,480,584	1,779,995
2003	68	99	9	176	15,366,040	13,976,203	1,389,837	1,644,664
2004	67	98	9	174	14,825,982	13,945,302	880,680	887,184
2005	73	98	9	180	16,298,994	14,690,064	1,608,930	2,066,462
2006	69	98	11	178	17,829,056	15,433,837	2,395,219	3,052,974
2007	71	100	11	182	16,248,165	15,155,781	1,092,384	2,123,283
2008	70	98	11	179	16,548,218	15,647,921	900,297	1,351,285
2009	69	97	11	177	19,036,385	18,302,574	733,811	986,123
2010	72	98	12	182	27,001,169	25,793,559	1,207,610	1,794,797
2011	71	96	11	178	27,040,652	25,793,559	1,247,093	1,810,770
2012	71	89	11	171	27,848,934	26,283,418	1,565,516	1,900,452
2013	74	82	11	167	25,253,854	23,142,707	2,111,147	1,760,119
2014	71	86	12	169	25,547,828	24,078,883	1,468,945	2,118,998
2015	72	88	12	172	25,213,475	23,537,661	1,675,814	2,010,239
2016 Est	72	86	11	169	24,086,847	22,773,320	1,313,527	1,711,758
2017 Budget	70	85	11	166	27,084,739	25,285,556	1,799,183	2,329,480

Concord Municipal Light Plant Electricity Sales Calendar Year (suoilliM) кми

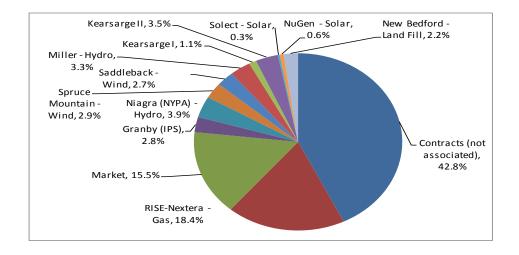
■Residential ■General Services □Municipal



Light Fund Energy Supply

Proposed 2017 Energy Purchases

	Energy		Share of	Share of
	(MWh)	Total	(MWh)	Cost
Contracts (not associated)	74,597		42.8%	46.64%
RISE-Nextera - Gas	32,120		18.4%	13.99%
Market	27,106		15.5%	12.11%
Granby (IPS)	4,861		2.8%	2.88%
Niagra (NYPA) - Hydro	6,713		3.9%	0.38%
Spruce Mountain - Wind	5,005		2.9%	5.77%
Saddleback - Wind	4,762		2.7%	5.26%
Miller - Hydro	5,681		3.3%	3.20%
Kearsarge I	1,973		1.1%	1.70%
Kearsarge II	6,129		3.5%	4.77%
Solect - Solar	481		0.3%	0.45%
NuGen - Solar	1,037		0.6%	0.75%
New Bedford - Land Fill	3,889		2.2%	2.08%
Total	174,354	\$8,602,806	100%	100.0%



Proposed 2017 Capacity Purchases

	Capacity
	(kW)
Contracts (not associated)	10,000
RISE-Nextera - Gas	11,000
Market	22,411
Granby (IPS)	301
Niagra (NYPA) - Hydro	1,132
Spruce Mountain - Wind	417
Saddleback - Wind	412
Miller (Brown Bear) - Hydro	n/a
Kearsarge I	not in ISO
Kearsarge II	not in ISO
Solect - Solar	n/a
NuGen - Solar	n/a
New Bedford - Land Fill	n/a
Watson - Gas	9,205
Hydro Quebec Interconnection	801
Total	55,679
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